211 E Grand - Results of Screening Conducted on September 16, 2010

Kornder, Steve to: VERNETA SIMON 09/24/2010 03:13 PM

Cc: Cathleen Martwick, EUGENE JABLONOWSKI, Mary Fulghum, "Dave Gutierrez", "Kiefer, Tony", "Chang, Patrick"

History: This message has been forwarded.

Good Afternoon Verneta:

As I indicated to you in our phone conversation late last week, the radiological screening that I conducted in a couple test pits on September 16, 2010 showed elevated gamma readings indicative of radiologically-impacted material at the 211 E. Grand site. Initially down-hole radiological screening was complete at the site in three geotechnical borings late this summer. One of the borings (B10-1) located in northeast corner of the property in the former drive way area (refer to drawing) indicated a slightly elevated gamma reading. A reading of 15,379 counts per 30-secs was observed at a depth interval of 2-2.5 feet, which was slightly over the instrument equivalent to the USEPA cleanup cut-off value of 12,000 counts per 30-secs. Readings at the 6" intervals above and below this depth were slightly less than the cleanup value (11,684 and 11,109 counts per 30-secs, respectively). Neither of the other borings indicated any gamma readings near or above the USEPA cleanup threshold.

Since there was only one measurement slightly over the USEPA threshold, it was believed that there was a possibility that the meter was reading brick and/or granite paver material where the natural radioactivity may have been contributing to the observed gamma readings. As such, a plan to visually examine the materials contributing to the elevated gamma reading was coordinated with testing pitting to observe the foundations of adjacent structures on September 16, 2010. Initial excavation in the area of the boring indicated gamma reading that ranged from 14,000 to 16,000 counts per minute (cpm), which is below the Ludlum threshold value of 17,522 cpm that is equivalent to the USEPA cleanup value of 7.1 pCi/g total radium. As excavation proceeded, the gamma reading increased slightly and exceeded the USEPA cleanup threshold and ranged from 19,000 to 21,000 cpm at a depth of about 18-inches. Soil/fill materials removed from the test pit remained below the USEPA cleanup threshold. When it was apparent that material above the USEPA cleanup threshold was present, excavation activities were halted to avoid the excavation of impacted material and the test pit was backfilled. The soil/fill in the test pit at the base of the excavation, where elevated readings were observed, consisted of tan to black colored sand to gravel size material with cinders, ash and some brick/concrete debris.

Surface surveying of the remainder of the former drive indicated an area of elevated readings is present along the western edge of the drive near the former building foundation. Although readings at the surface were slightly elevated, it appeared the surface material may not be above the cleanup threshold and that the instrument is measuring elevated/impacted material below the surface. The highest surface reading (50,000 cpm – refer to drawing) occurred about 41 feet south of the sidewalk and 17 feet west of the eastern property boundary. Hand excavation of a small area to a depth of about 1-foot at the highest surface reading indicated a maximum of 106,000 cpm versus the instrument threshold of 17,522 cpm. A sample of the material was retained for future potential analysis.

In summary, it appears that an area just below the current surface (maybe 6 X 40 feet – parallel to the former foundation) on the western side of the former drive exhibits slightly elevated gamma readings that are indicative of soil/fill impacted with Lindsay Light thorium material. Visual examination in the area of the elevated gamma measurements indicated that the readings were inconsistent with natural materials such as brick and/or granite pavers. Based on the limited amount of delineation conducted, it does not appear that the radiologically-impacted material is more than a couple of feet in thickness, but additional investigation would be necessary to quantify the extent and volume of material.

We will be following up with you in the near future, but in the meantime please contact me if you have any questions.

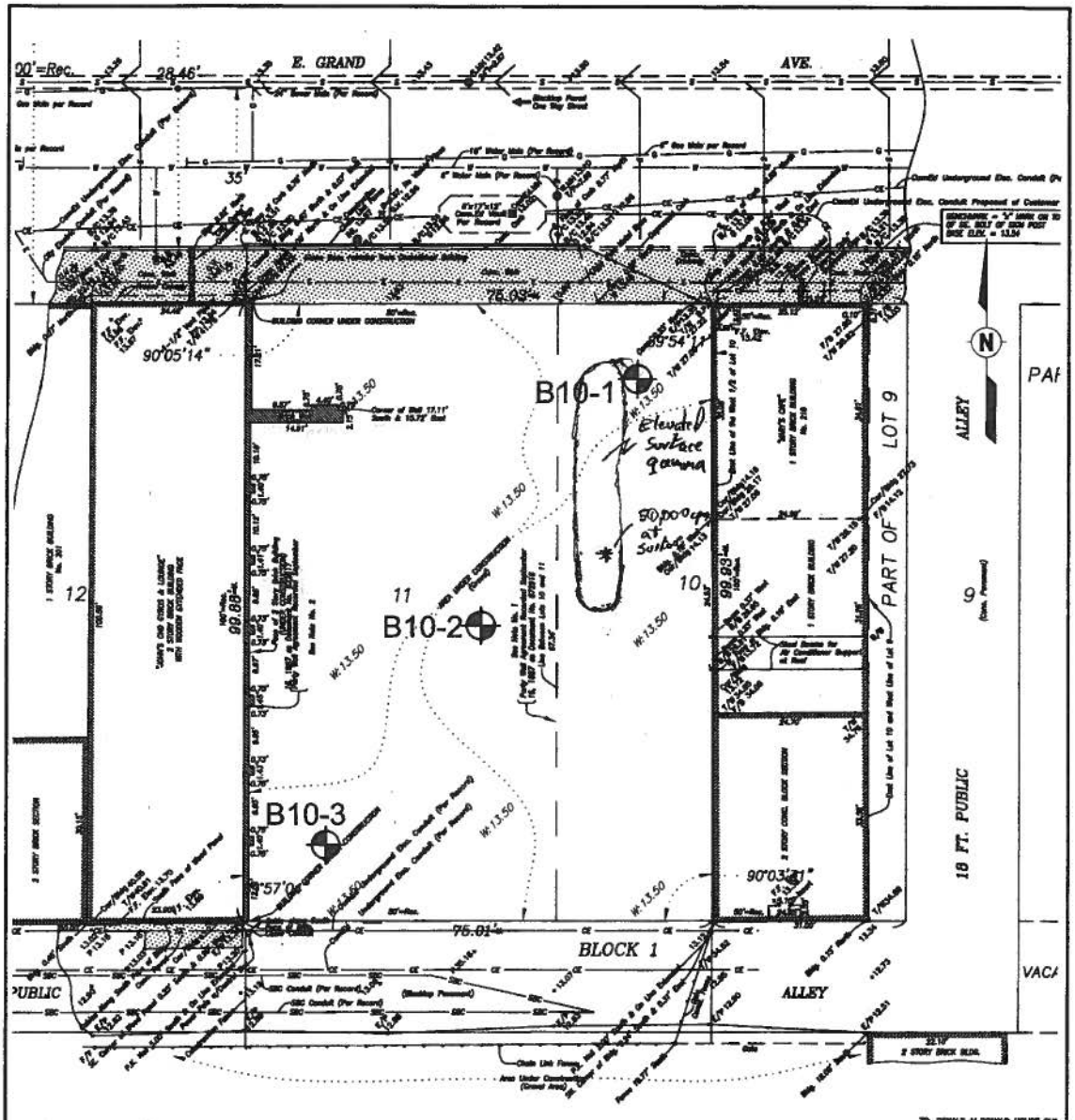
Sincerely,

Steve Kornder, Ph.D.
Senior Project Geochemist
D 847.279.2448 C 847.343.6007

AECOM
750 Corporate Woods Parkway
Vernon Hills, IL 60061
T 847.279-2500 F 847.279.2510
steve.kornder@aecom.com

My email has changed to steve.kornder@aecom.com. Please update your address book accordingly.

Effective October 2008, STS will be known as AECOM. AECOM provides a blend of global reach, local knowledge, innovation, and technical excellence in delivering solutions that enhance and sustain the world's built, natural and social environments.



K:\PROJECTS\60157402\CAD\G-60157402-SBLD.dwg; 6/30/2010 9:00:01 AM; CHANG, PATRICK; monochrome.ctb

AECOM

847.279.2500
www.aecom.com

SOIL BORING LOCATION DIAGRAM
PROPOSED RONALD MCDONALD HOUSE
RONALD MCDONALD HOUSE CHARITIES
211 E. GRAND AVENUE
CHICAGO, ILLINOIS

Drawn:	PCC	06/25/2010
Checked:	PCC	06/25/2010
Approved:	TAK	06/25/2010
PROJECT NUMBER	60157402	
FIGURE NUMBER	1	